

Notice of Allowability

Application No.

10/553,029

Applicant(s)

DELPUECH ET AL.

Examiner

Thomas K. Pham

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2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to preliminary amendment filed 10/07/2005.
2. ☒ The allowed claim(s) is/are 14-28.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

Reasons for Allowance

1. Claims 14-28 are allowed.
2. The following is an examiner's statement of reasons for allowance:

While Newman et al. (U.S. Patent No. 6,895,775) discloses method for surface crust freezing of a food product utilizes a refrigeration shell enclosing a freezing chamber, the freezing chamber having a cavity shaped to substantially accommodate the shape of the exterior surface of the food product; the cavity communicating with the refrigeration shell; a transport substrate to carry the food product into the freezing chamber; a gas circulation device in the refrigeration shell in communication with a cryogen supply to introduce a cooling flow of gas containing cryogen into the cavity so as to contact the food product along its exterior surface.

And Howells (U.S. Patent No. 5,267,490) discloses sampling device removably mounted proximate the discharge opening in an immersion freezer to collect samples of frozen product as they exit the immersion freezer conveyor and are deposited into a second freezing or equilibrating device, where the conveyor reverses direction and where the product falls from the immersion freezer conveyor onto the tunnel freezer conveyor so that the samples can be withdrawn without opening the immersion portion of the freezing system.

The prior art of record fails to teach or fairly suggest to one of ordinary skill in the art at the time of the invention, in conjunction with all the other claimed limitations, a method which may be used for determining operating parameters of an installation for the cooling of articles having all the claimed features of applicant's instant invention, specifically including: predicting a temperature of said articles at said outlet, wherein said prediction is made on the basis of: the operating parameters of said chamber; the thermodynamic and physical characteristics of said

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chamber; and the thermodynamic and physical characteristics of said articles; said predicting comprises: predicting the behavior of said chamber based on the solution of heat balance equations on elementary volume slices of said chamber, based at least on the basis of: thermodynamic characteristics of said cooling fluid; and thermodynamic and physical characteristics of said chamber; and predicting the behavior of said articles based upon solving a discretized heat conservation equation, as applied to a grid of spatial and temporal points which constitute a mesh of said articles, based at least on the basis of said thermodynamic and physical characteristics of said articles; comparing said temperature set point with said predicted temperature; modifying said operating parameters, when said comparison reveals a difference between said predicted temperature and said temperature set point., etc., as set forth in the claims.

Also, there is no motivation to combine the Newman et al. reference with the Howells reference to meet these limitations. It is for these reasons that applicant's invention defines over the prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

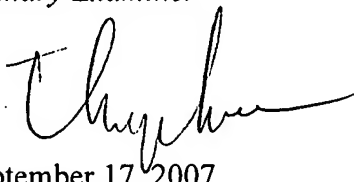
Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner *Thomas Pham*; whose telephone number is (571) 272-3689, Monday to Friday from 7:30 AM - 4:00 PM EST or contact Supervisor *Mr. Anthony Knight* at (571) 272-3687.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thomas Pham

Primary Examiner

A handwritten signature in black ink, appearing to read 'Thypham', written over the printed name and title.

September 17, 2007